FCC Presentation On MLTS & Location Technologies

West Safety Services
May 11th , 2018

Dispatchable Location Capabilities
Current MLTS Technologies and Platforms

Which combinations from the lists below can potentially support dispatchable location?

- Communications service types: IP, non-IP, Hybrid;
- MLTS service type: on premises hardware and software; hosted cloud solutions; over-the-top applications …. *+ hybrid cloud solutions + ...*
- MLTS Operator/Manager: Customer-managed, Third-party managed
- End user device: Wired, Wireless, Soft Phone; + softphone in a browser, softphone on a smartphone,…

Dispatchable Location Capabilities
Current MLTS Technologies and Platforms

- It is possible to enable 911 calls with dispatchable location for all of the above systems and end user devices today.
- The approach depends on the voice solution as well as the enterprise's needs – it can be as simple as a low-cost PS-ALI service to more sophisticated approaches with automatic discovery and support for highly mobile users.
- There is an ROI on the automated capabilities. Accurate 9-1-1 routing and reduced administration costs.

West Safety Services – ECS Solution

- PS-ALI
- VPC for Business

VPC for Business

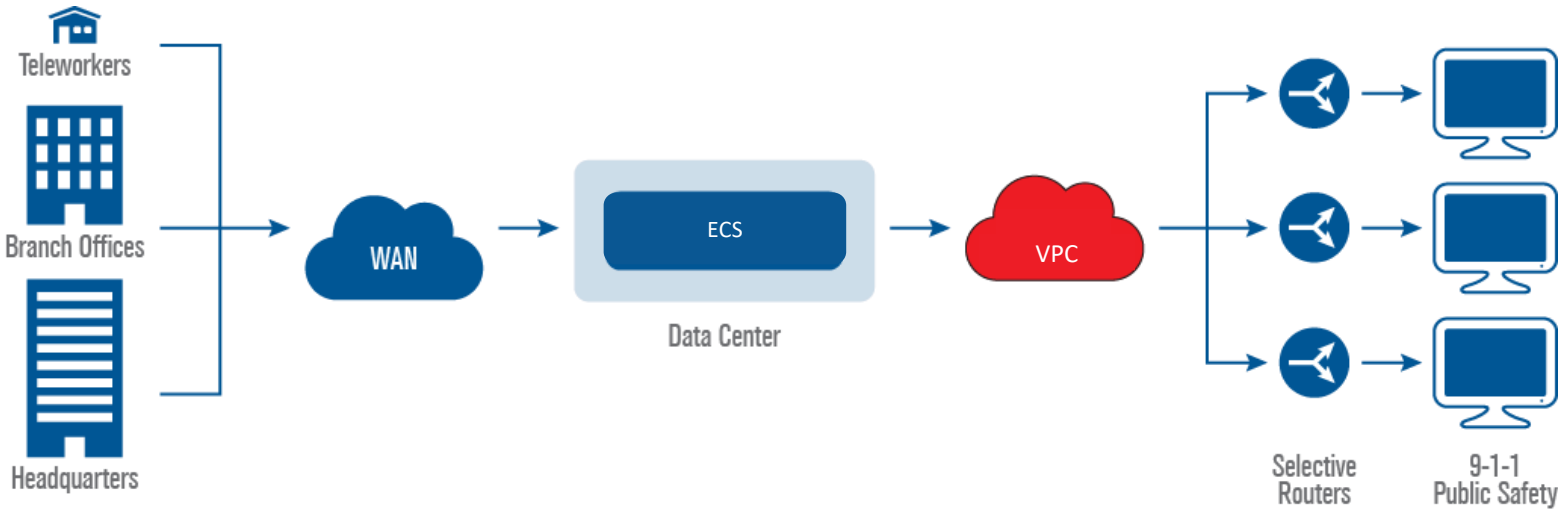
Data Management

- Provisioning of Dispatchable Locations
- Static location or dynamic location determination.
  - Static location requires regular updates.
  - Dynamic Location is acquired at call time.

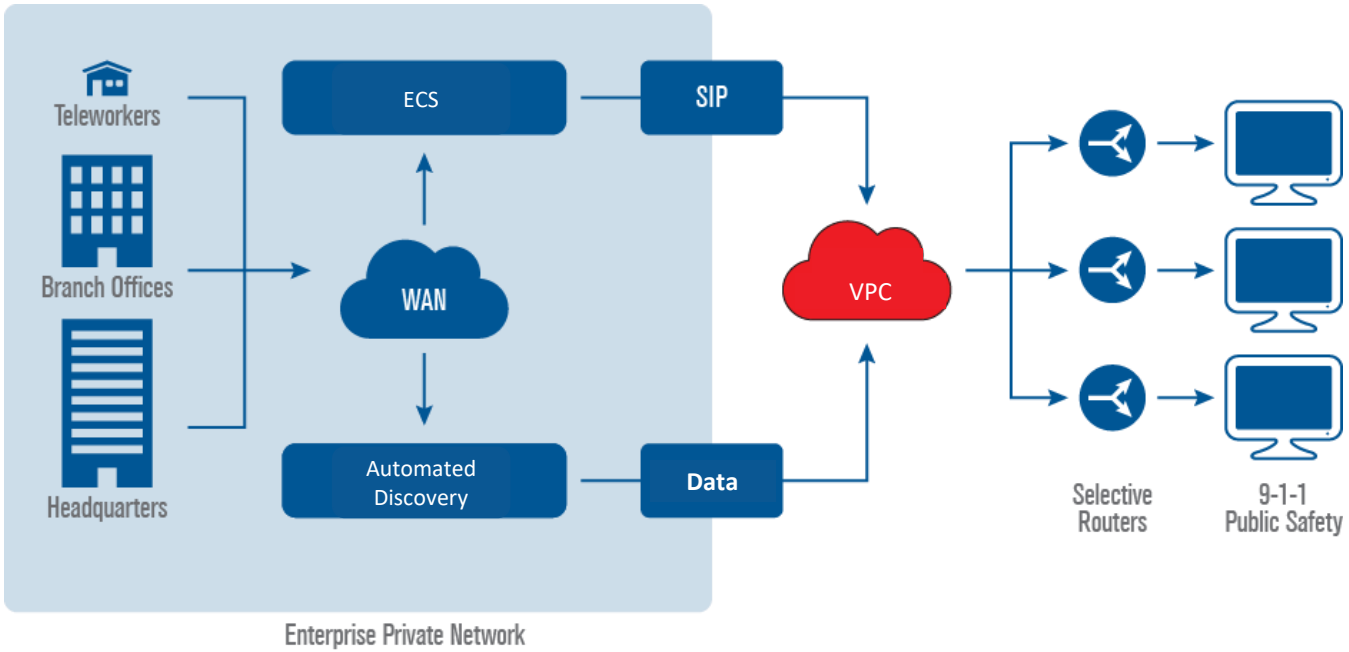
Call Routing

- Route to appropriate PSAP
- PSAP receives dispatchable address,

VPC Solution Architecture



Automated Discovery with VPC



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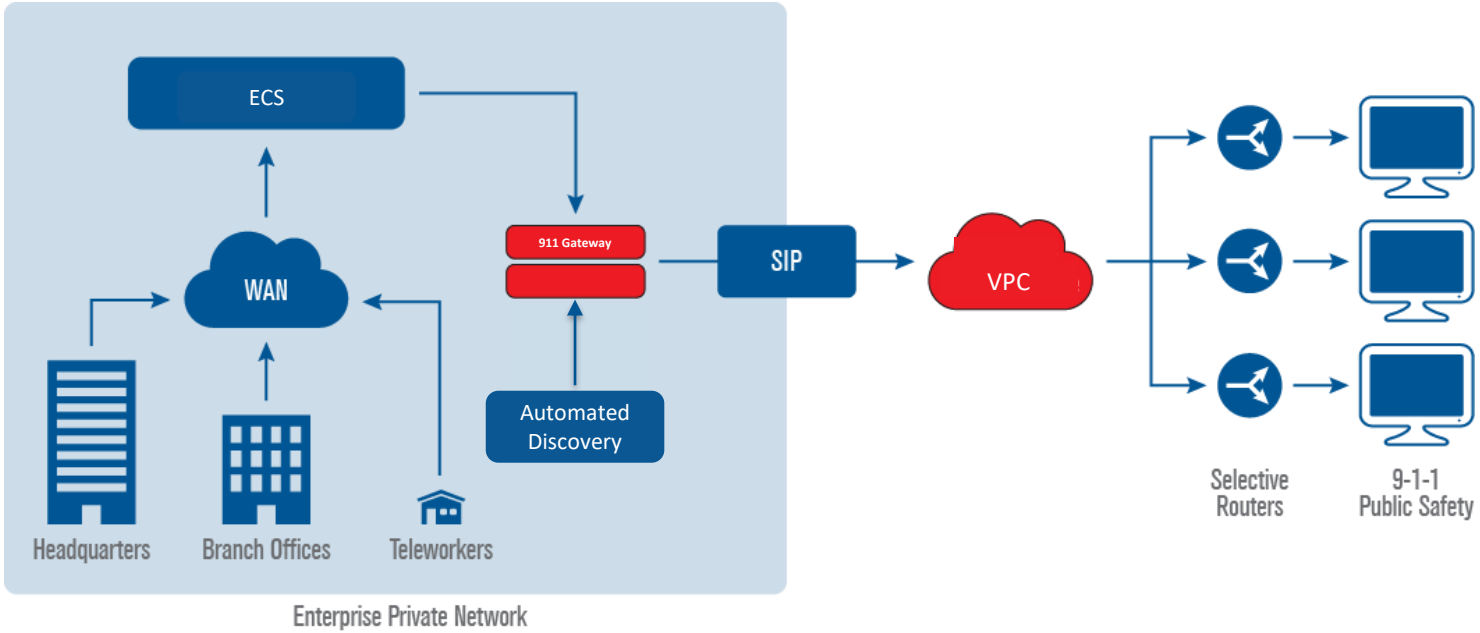
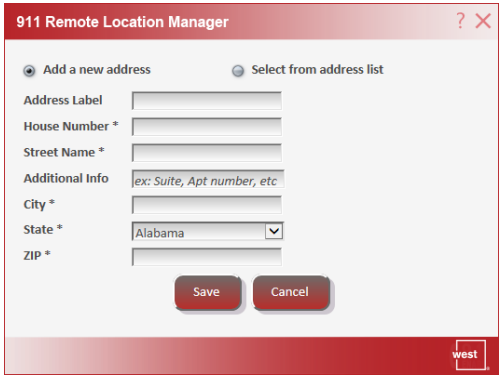
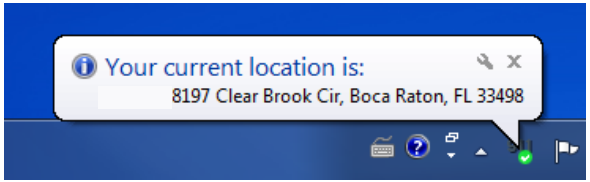


Softphones and Off-site Users

- Softphone are highly mobile and require automatic tracking when in the enterprise.
- Off-site softphone users need a dispatchable location. Location can be manual or automatic.





Address Validation

- Address validation is key to ensuring a quick emergency response
- MSAG (Master Street Address Guide) is the golden standard for all PSAPs today.
- MSAG=COMPATIBILITY
- LIS deployments must refer address validation to an MSAG database (LVF for NG 9-1-1)

Automatic vs. Manual location Questions

- What automatic location detection methods for MLTS are currently available?
- What action is needed by MLTS manufacturers/MLTS operators/communications service providers to make it widely available?
- For Manual, how much user participation required? How can it be minimized?
- Even if a portable device cannot detect the caller's actual location, are there ways of determining whether a device is in a different location than it was previously?

Automatic vs. Manual location

What automatic location detection methods for MLTS are currently available?

- Obtaining the endpoint's network location (e.g. wireless access point)

- Location Aware Endpoints provide the location with the call.

Automatic vs. Manual location

What action is needed by MLTS manufacturers/MLTS operators/communications service providers to make it widely available?

- Automated location determination solutions for 9-1-1 are widely available today for non-hosted solutions.

- Hosted/cloud solutions are in the early adoption phase. There is a demand for automated location capabilities.

Automatic vs. Manual location

For Manual, how much user participation required? How can it be minimized?

- Manual location determination, a user must submit the address everytime a location changes.

- Automation allows to reduce all or part of the location provisioning workflow.

Automatic vs. Manual location

- *Even if a portable device cannot detect the caller's actual location, are there ways of determining whether a device is in a different location than it was previously?*

- There are multiple methods to support highly mobile devices.

- Location change is usually detected by the device or using data provided by the device.

Callback Capabilities

There are multiple methods to support callback.

- Caller's 10 digit DID
  - PSAP can call back directly the caller.
- Proxied Callback
  - PSAP calls back a number that forwards to the caller's internal extension number. This method is used to save the cost of a DID number for all ECS users.
- Alternative Answering Point
  - PSAP calls back a number routed to an alternative answering point such as a school or call center supervisor, where calling back the original caller is not possible or advised.

Standards

Current MLTS 911 Equipment and Service Offerings.

- Interfaces
  - Data management interfaces. No standards
  - CTI Interface for call control. Some standards but inconsistent implementation.
- Signalling
  - SIP
- Data formats
  - PIDF-LO, NENA legacy data formats.

Deployment and Performance Metrics

- Deployment History: What and Where
- Call Completion Rate
- Delay and How Delay is measured
- Accuracy, Reliability, Resiliency, etc.
- Location Update Mechanism and Rate

We would like to ask clarifying questions for this section.

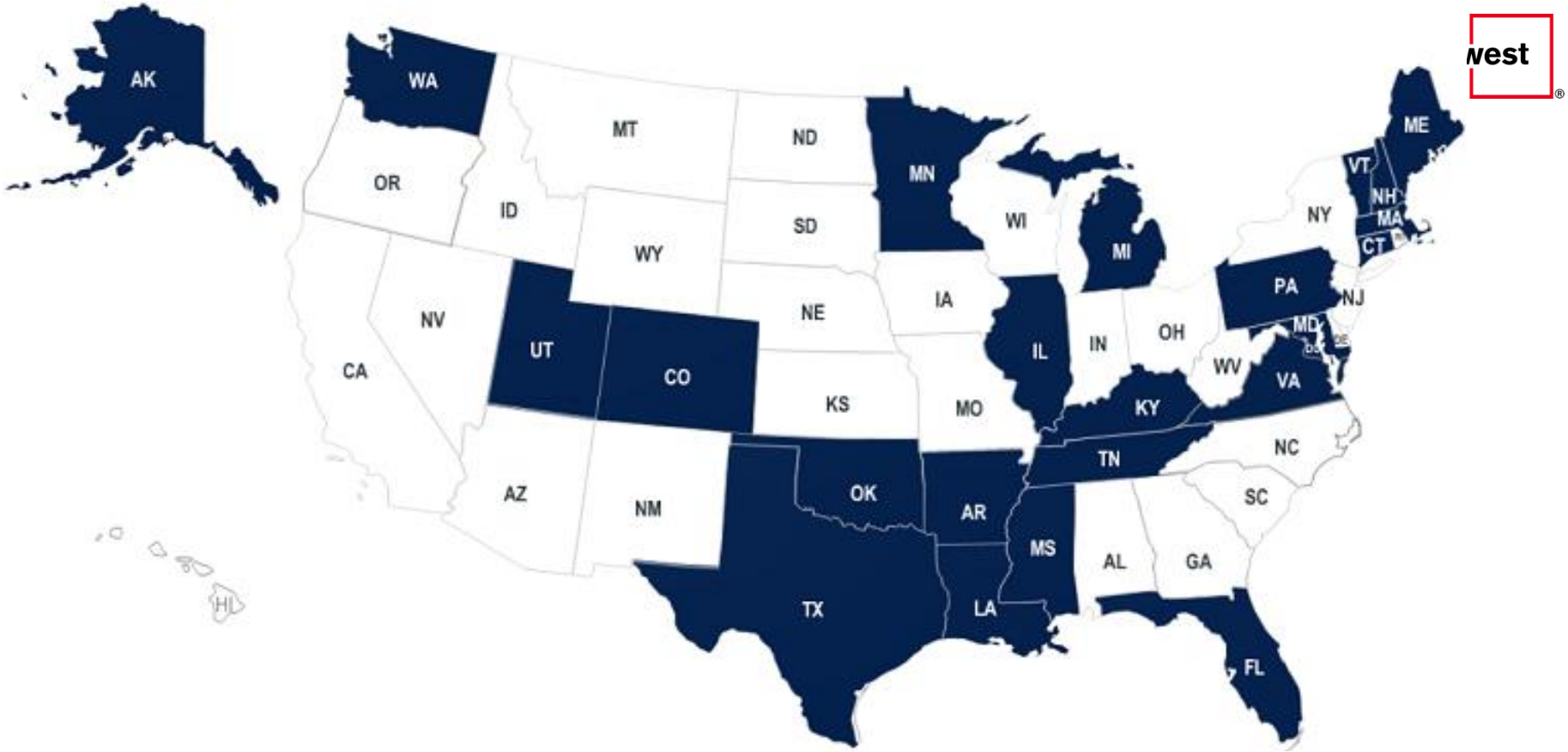
Demarcation of responsibilities.

- How do you divide various responsibilities today? What is the communications service responsible for? What is the MLTS operator responsible for? What is the enterprise responsible for? Can a third-party vendor (e.g., OTT APP Provider) access your location information?
- Details of how location information is shared:
  - Process: who is currently responsible for what? Who collects location information? Who sends to PSAP/ALI? How is this done?
  - Format: For Access and data exchange
  - Delays

We would like to ask clarifying questions for this section.

State Model Legislation

- History Overview
  - States Request For Federal Policy Assistance
  - State Information: https://www.west.com/legal-privacy/e911-regulations/#State_E911_Legislation
- Current Policy Status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Essential Elements of Effective MLTS Policy

- Provide for Uniformity Where State Law is Ineffective or Inconsistent
- Clarity on Policy Applicability:
  - Simplify Approach / Establish Requirements or Methods / Adoption Timeframe
  - Technologically Neutral;
  - Adapts to Diverse Marketplace & Participants;
  - Applies to any device connected to MLTS with ability to reach 9-1-1 (i.e. softphones, remote users, hosted solutions);
- Location: Dispatchable Address; Bounce-Back Message; and
- Data Requirements: MSAG / Data Validation

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Thank You